

Appeal No. 2015-1732

United States Court of Appeals
for the
Federal Circuit

ADVANCED GROUND INFORMATION SYSTEMS, INC.,

Plaintiff-Appellant,

– v. –

LIFE360, INC.,

Defendant-Appellee.

APPEAL FROM THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF FLORIDA, CASE NO.
9:14-CV-80651-DMM, JUDGE DONALD M. MIDDLEBROOKS

**REPLY BRIEF FOR PLAINTIFF-APPELLANT
ADVANCED GROUND INFORMATION SYSTEMS, INC.**

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October 27, 2015

CERTIFICATE OF INTEREST

Counsel for Plaintiff-Appellant Advanced Ground Information Systems, Inc. certifies the following:

1. The full name of every party or amicus curiae represented by counsel is:

Advanced Ground Information Systems, Inc.

2. The name of the real party in interest represented by counsel is:

None.

3. All parent corporations and any publicly held companies that own 10 percent or more of the stock of the party or amicus curiae represented by counsel are:

Advanced Ground Information Systems, Inc. does not have any parent corporations. No publicly held company owns 10 percent or more of its stock.

4. The names of all law firms and the partners or associates that appeared for the party represented by me in the trial court or agency or are expected to appear in this court are:

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Dated: October 27, 2015

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INTRODUCTION

As AGIS explained in its opening brief, the judgment that the asserted system and device claims are indefinite should be reversed because the district court erred when it concluded that the “symbol generator” and “CPU software” elements invoked § 112, ¶ 6.

Life360 introduced no evidence to meet its burden of rebutting the presumption that § 112, ¶ 6 did not apply. And the unrebutted testimony of AGIS’s technical expert, Benjamin Goldberg, Ph.D., a professor of computer science, showed that those skilled in the art would have understood each of these claim elements to refer to a well-known, specific class of structures, namely, a well-known class of existing, standard software modules that manufacturers provide for every device to perform the very basic and simple routines at issue. Specifically, Dr. Goldberg explained that the “symbol generator” elements refer to well-known and existing software modules on every device that select a symbol from a library and display it at an x-y position on the screen. He also explained that the two “CPU software” elements refer to well-known and existing software modules on every device that poll other phones in a network, and exchange data with other phones, respectively. In other words, these claim elements refer to well-known, existing software modules for performing very basic tasks, for which it was plainly unnecessary to describe an algorithm in the specification. Because the

evidence that these claim elements connoted structure to those skilled in the art was un rebutted, the district court's findings that they did not connote structure were clearly erroneous, and the court's conclusion that § 112, ¶ 6 applied should be reversed.

As explained below, Life360 responds primarily by parroting the district court's erroneous findings and analysis. For example, Life360 selectively quotes Dr. Goldberg's testimony to try to support the district court's erroneous finding that he admitted that "symbol generator" is a "coined" term with "no clear meaning." But when Dr. Goldberg's testimony is read in context it is clear that he said no such thing. Life360 also tries to support the district court's finding that Dr. Goldberg merely testified that those skilled in the art could create the software, even though he actually testified that the software is standard software that already exists on every device and is well-known. Life360 does not dispute that Dr. Goldberg is an expert in this field. When his actual testimony is properly considered, it is clear that the district court erred when it found that the "symbol generator" and "CPU software" elements invoked § 112, ¶ 6.¹

¹ Life360 also makes one peripheral point that warrants a brief response. Life360 accuses AGIS of misrepresenting Life360's non-infringement arguments for the method claims asserted at trial (which are not at issue in this appeal) as limited to two arguments when Life360 made other non-infringement arguments. Life360 Br. at 9-10. But as AGIS explained (AGIS Br. at 3-5, 9-10), and as Life360's JMOL motion (A2900-15, cited at Life360 Br. at 10) confirms, Life360's two

ARGUMENT

I. The “Symbol Generator” Elements Refer to a Well-Known Class of Standard Software Modules and Did Not Invoke § 112, ¶ 6

As AGIS explained (AGIS Br. at 25-34), the district court erred when it concluded that the “symbol generator” elements in claims 3 and 10 of the ’728 patent and claims 5 and 9 of the ’681 patent invoked § 112, ¶ 6. Life360 did not meet its burden of rebutting the presumption that § 112, ¶ 6 did not apply, because the unrebutted testimony of Dr. Goldberg showed that those skilled in the art would have understood the “symbol generator” elements to refer to a well-known, specific class of structures, namely, a well-known class of existing, standard software modules routinely used to display symbols on a screen. A549, ¶ 21; A735, 23:23-24:13; A798-801; A812-13. Dr. Goldberg testified as follows in his declaration:

[O]ne of ordinary skill in the art would have understood that a symbol generator is a standard module of software code that was well known in the art and that the term “symbol generator” would have been sufficient to identify these modules of program code to one of ordinary skill in the art. One of ordinary skill in the art would have understood that there existed classes of software subroutines that programmers would have known to use to generate symbols on a display. For example, one of ordinary skill in the art would have known how to utilize common graphics libraries along with corresponding application programming interfaces (“APIs”) to generate images on a display.

primary non-infringement arguments, which applied to all of the method claims, were divided infringement and lack of intent to indirectly infringe.

A549, ¶ 21. And Dr. Goldberg explained at the hearing that the specific software used to display symbols on a given device would be well-known to those skilled in the art because the software is basic, standard software that manufacturers provide for every device:

Q. So would “symbol generator” as used in these patents, ’728 and the ’681, have connoted any particular structure to one of skill in the art?

A. Sure. It’s the software that is used, as we talked about the system, for displaying the symbols, the images for each user on the screen. And I would note that every manufacturer of a device that can display stuff on the screen provides a library of software modules that a user or developer can use to display images on the screen. And so one of skill reading “symbol generator” in the context of these patents would know, oh, yeah, that’s the library, routine, that you give it, the image you want to display, and you give it the x, y coordinate, and it does it for you.

Q. And Dr. Goldberg, you used the term “library.” Could you just explain briefly what you mean by “library”?

A. Sure. Whenever a manufacturer manufactures a device and it wants developers to be able to write code for that device, it provides software that developers can use in order to build their applications. For example, you know, when Intel builds a new computer, it will provide some software that developers can use to interact with the hardware in order to, for example, display letters on the screen. And so these libraries are the software provided by the manufacturer in order for developers to be able to use.

Q. So to be clear, Dr. Goldberg, does this claim language “symbol generator” refer to one of ordinary skill to existing specific algorithms or to simply advise him what he might be able to devise?

- A. No, it refers to the use of the software libraries that every device has in order to display an image on the screen at the right coordinates.

* * *

THE COURT: Let me ask you, on that last slide where does this suggest that the software would be available from the manufacturer of the device as opposed to being part of this invention?

THE WITNESS: Because just the act of displaying images on a screen is part of every device. And so the symbol generator here is just what draws the symbols on the screen at the specified x and y coordinates. And that is what's been provided with every computer that is able to display images on the screen. It wouldn't have to be described any further because everybody with a computer science background would know exactly what to do.

THE COURT: In 2006?

THE WITNESS: Oh, yes. Going back to the '60s.

A798-801; *see also* A735, 24:8-13; A812-13.

In sum, Dr. Goldberg's testimony showed that those skilled in the art would understand the "symbol generator" elements to refer to basic, standard software, which manufacturers provide with every device, to select a symbol from a library and display it at an x-y position on the screen. Life360 did not submit any evidence in response. Therefore, Dr. Goldberg's un rebutted testimony that those skilled in the art would have understood what a "symbol generator" is demonstrated that the "the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for

structure.” *Williamson v. Citrix Online LLC*, 792 F.3d 1339, 1348 (Fed. Cir. 2015). The district court’s finding to the contrary was clearly erroneous, and its conclusion that § 112, ¶ 6 applied should be reversed.

As explained below, Life360 responds primarily by recasting Dr. Goldberg’s testimony to try to defend the district court’s erroneous findings and analysis. Life360 Br. at 22-35.

A. The District Court Erred When It Found that AGIS’s Expert Admitted that “Symbol Generator” Was a “Coined” Term With No Clear Meaning

Life360 argues that the district court correctly found that “symbol generator” was a “coined term lacking a clear meaning” because Dr. Goldberg purportedly admitted that he is “‘not aware’ whether the term ‘symbol generator’ has a meaning in computer science.” Life360 Br. at 22-23 (citing A11, A735, A798); *see also* Life360 Br. at 3, 15, 26, 30, 32, 33. But as AGIS explained (AGIS Br. at 28-29), Dr. Goldberg did not admit this. He testified that “[w]hether you heard symbol generator in the course of studying computer science, I’m not aware,” but that in the context of these patents, “one of skill would understand [what a] symbol generator is.” A735, 21:23-22:12. And he testified that “I don’t recall if I’ve heard those two words together, but both ‘symbol’ and ‘generator’ are terms of art in computer science. So putting them together is completely comprehensible for one of skill.” A798 at 3-6. Instead of confronting this testimony, Life360

truncates it to omit Dr. Goldberg’s explanations that “one of skill would understand [what a] symbol generator is” and that “both ‘symbol’ and ‘generator’ are terms of art in computer science . . . [s]o putting them together is completely comprehensible for one of skill.” Life360 Br. at 23. When Dr. Goldberg’s testimony above is read in context, and considered with the rest of his testimony (quoted above), it is clear that he did not admit that “symbol generator” is a coined term with no clear meaning. Therefore, the district court’s contrary finding, which Life360 acknowledges “was largely based” on this testimony (Life360 Br. at 23), was clearly erroneous.

Life360 also repeatedly asserts that “symbol generator” is a generic, nonce term that is merely a “black box” substitute for “means,” like “device,” “module,” or “mechanism.” Life360 Br. at 3, 22, 23, 25, 28, 32, 34. But Life360 does not point to any evidence to support this conclusory assertion, and there is none. Dr. Goldberg’s testimony showed that those skilled in the art would have known that a “symbol generator” refers to a specific, well-known class of existing, available, software modules that perform a very basic and simple function—displaying symbols on a screen. Thus, “symbol generator” is not a generic placeholder term like “device” or “mechanism” that describes a “black box” that can perform myriad functions.

To the contrary, as AGIS explained (AGIS Br. at 29-30), “symbol generator” is an example of a structure that takes its name from the specific function it performs, like “manipulator” and “detector,” both of which have been held not to invoke § 112, ¶ 6. *See Duratech Indus. Int’l, Inc. v. Bridgeview Mfg., Inc.*, 292 F. App’x. 931, 933 (Fed. Cir. 2008) (“‘Manipulator’ is not a generic structural term of the ilk of such placeholder terms as ‘mechanism,’ ‘device,’ or ‘element.’”); *Personalized Media Commc’ns, LLC v. Int’l Trade Comm’n*, 161 F.3d 696, 704 (Fed. Cir. 1998) (“‘Detector’ is not a generic structural term such as ‘means,’ ‘element,’ or ‘device’”). Life360 tries to distinguish these cases by arguing that terms like “manipulator” and “detector” refer to “well-known classes of physical structures” that have clear meanings “outside the context of the patent” because the terms are defined in dictionaries. Life360 Br. at 25-26; *see also id.* at 27-28. But a term need not be defined in a dictionary or have a clear meaning “outside the context of the patent” to avoid § 112, ¶ 6, so long as it has a clear structural meaning within the context of the patent. And a term need not refer to a class of *physical* structures, as opposed to, for example, software. This Court’s test is simply whether “the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure.” *Williamson*, 792 F.3d at 1348. This test is met here because the evidence showed

that those skilled in the art would understand a “symbol generator” to refer to a well-known, specific class of software.

As such, the primary case on which Life360 relies (Life360 Br. at 24-25), *Media Rights Techs., Inc. v. Capital One Fin. Corp.*, 800 F.3d 1366 (Fed. Cir. 2015), is distinguishable. The issue in *Media Rights* was whether the generic term “compliance mechanism” invoked § 112, ¶ 6, but the patentee in that case “d[id] not dispute that ‘compliance mechanism’ has no commonly understood meaning and is not generally viewed by one skilled in the art to connote a particular structure.” *See* 800 F.3d at 1372. In contrast, Dr. Goldberg’s unrebutted testimony here showed that those skilled in the art would understand the “symbol generator” elements to refer to a well-known, specific class of structures.

Similarly, contrary to Life360’s argument (Life360 Br. at 28), the term “symbol generator” is not like the generic term “lever moving element” held to invoke § 112, ¶ 6, in *Mas-Hamilton Grp. v. LaGard, Inc.*, 156 F.3d 1206 (Fed. Cir. 1998). In that case, the evidence did not show that “lever moving element” had a well-understood meaning in the art, so the Court concluded that “a ‘moving element’ could be any device that can cause the lever to move.” *Mas-Hamilton Grp.*, 156 F.3d at 1214. Here, in contrast, the evidence showed that those skilled in the art would understand “symbol generator” to refer not to “any device that can

cause” symbols to be generated, but instead to a well-known, specific class of software.

B. The District Court Erred When It Misconstrued the Testimony of AGIS’s Expert As Being Directed Only to Whether Those Skilled In the Art Could Create Software

Life360 also recasts Dr. Goldberg’s testimony to try to support the district court’s erroneous finding that the testimony “seems to go to the issue of enablement, not indefiniteness, by focusing on what one of ordinary skill in the art *could* devise based on the specification.” A12 (citing A549, ¶ 21) (emphasis in original). Life360 asserts that Dr. Goldberg’s testimony that those skilled in the art “would have known how to utilize common graphics libraries along with corresponding application programming interfaces (‘APIs’) to generate images on a display” was merely evidence that they could “create” or “devise” or “build” software to generate symbols, not evidence that this software already existed. Life360 Br. at 30-31 (quoting A549, ¶ 21); *see also* Life360 Br. at 15. Life360’s argument echoes its argument to the district court that Dr. Goldberg merely testified that those skilled in the art could “figure out” how to develop software to generate symbols on a display, and that this testimony was irrelevant to whether § 112, ¶ 6 applied because it addressed enablement. A684-85; A818-22; AGIS Br. at 18-21.

Dr. Goldberg did not testify that those skilled in the art could “figure out” how to “create” or “devise” or “build” software to generate symbols, or that this software did not already exist. He testified that they would have understood the “symbol generator” elements to refer to a well-known class of existing, standard software modules used to display symbols on a screen. A549, ¶ 21; A735, 23:23-24:13; A798-801; A812-13. In particular, in the passage quoted by Life360 (Life360 Br. at 31) and the district court (A12), Dr. Goldberg testified that those skilled in the art would know how to “utilize” this existing software, not how to “create” or “devise” or “build” it. A549, ¶ 21; A798-801.

Therefore, Dr. Goldberg’s testimony was not directed to enablement, *i.e.*, whether those skilled in the art could build a “symbol generator.” His testimony was directed to whether the “symbol generator” elements invoked § 112, ¶ 6, *i.e.*, whether they would have been “understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure.” *Williamson*, 792 F.3d at 1348. And, as AGIS explained (AGIS Br. at 18-21), Life360’s argument and its recasting of Dr. Goldberg’s testimony confused the district court, which did not even consider the testimony when deciding whether the “symbol generator” elements invoked § 112, ¶ 6, even though that was the issue to which the testimony was directed. A10-11; A549, ¶ 21. Led astray by Life360, the court instead addressed this testimony only in deciding whether the specification disclosed

corresponding structure, after having already concluded that the elements invoked § 112, ¶ 6. A12-13 (citing A549, ¶ 21). In other words, the district court erroneously ignored the testimony in considering the issue to which it was relevant, and then misconstrued it in addressing a different issue to which it was not relevant.

Life360 does not dispute that the district court addressed Dr. Goldberg's testimony under the wrong legal framework. In fact, Life360 repeats the district court's error by relying on the same irrelevant precedent on which the court relied, namely, *Function Media, LLC v. Google, Inc.*, 708 F.3d 1310, 1319 (Fed. Cir. 2013). Life360 Br. at 31; A12-13. As AGIS explained (AGIS Br. at 32 & n.8), *Function Media* did not address whether an element invoked § 112, ¶ 6, which is the issue to which Dr. Goldberg's testimony was directed, and the only issue in this appeal. The element in *Function Media* recited "means," and there was no dispute that it invoked § 112, ¶ 6; the only issue was whether the specification disclosed corresponding structure. *See* 708 F.3d at 1317-19. In the course of deciding that issue, the Court in *Function Media* expressed the principle on which the district court relied in this case, namely, that showing that one skilled in the art "*could* devise some method to perform the function is not the proper inquiry as to definiteness—that inquiry goes to enablement." *Id.* at 1319 (emphasis in original); A12-13. But this principle is irrelevant here: AGIS does not dispute on appeal the

district court's finding that the specification does not disclose corresponding structure if the "symbol generator" elements invoked § 112, ¶ 6; AGIS disputes only the predicate finding that the elements invoked § 112, ¶ 6 in the first place.

Finally, Life360 asserts that Dr. Goldberg's testimony was "conclusory," "unsupported," and "uncorroborated." Life360 Br. at 29, 31-32. These assertions do not withstand scrutiny. Dr. Goldberg explained in his declaration (quoted above) that those skilled in the art would know precisely which software to use, namely, well-known "common graphics libraries along with corresponding application programming interfaces ('APIs')" used to display symbols on a screen. A549, ¶ 21. And he explained at the hearing (in the testimony quoted above) that the specific software used for a given device would be well-known because the software is standard software that manufacturers provide for every device. A798-801; A735, 24:8-13; A812-13.

As the quoted excerpts show, Dr. Goldberg's testimony plainly was not conclusory or unsupported. Life360 ignores virtually all of this quoted testimony and does not explain what "support" or "corroboration" was required. Life360 does not dispute that Dr. Goldberg is an expert in this field, and his unrebutted testimony was that those skilled in this art would know that a "symbol generator" refers to this specific class of existing, standard software, and that they would

know precisely what specific software to use for a given device. Nothing more is required.

C. The District Court Erred When It Failed to Require Life360 to Rebut the Presumption that § 112, ¶ 6 Did Not Apply to the “Symbol Generator” Elements

As AGIS explained (AGIS Br. at 32-33), the district court erred by failing to require Life360 to rebut the presumption that § 112, ¶ 6 was not invoked given that AGIS did not use the term “means” in the “symbol generator” elements.²

Although the court acknowledged the presumption when it discussed the legal framework (A7-8), when it analyzed whether the “symbol generator” elements invoked § 112, ¶ 6, it did not refer to the presumption, state that it was applying it, or require Life360 to rebut it (A10-11). Instead, the district court effectively put the burden on AGIS and Dr. Goldberg to demonstrate that the “symbol generator” elements did not invoke § 112, ¶ 6. For example, the court’s question to Dr. Goldberg asking him “where does this suggest that the software would be available from the manufacturer of the device” (A800) shows that the court considered it to be Dr. Goldberg’s burden to show that the elements connoted structure. The district court’s failure to put Life360 to its burden of rebutting the presumption was reversible error. *See Linear Technology Corp. v. Impala Linear Corp.*, 379 F.3d 1311, 1319-20 (Fed. Cir. 2004).

² Although the en banc Court recently held in *Williamson* that the presumption is no longer “strong,” it did not eliminate the presumption. 792 F.3d at 1349.

Life360 responds by quoting the district court's references to the presumption when the court set forth the framework (A7-8) and when it analyzed the "CPU software" elements (A15), and then insisting that the court must have applied the presumption when it analyzed the "symbol generator" elements too. Life360 Br. at 33. But Life360 does not dispute that when it addressed the "symbol generator" elements, the court never stated that it was applying the presumption or requiring Life360 to rebut it. A10-11.

Moreover, contrary to Life360's argument (Life360 Br. at 33-34 (citing 379 F.3d at 1320)), *Linear Technology* is not distinguishable. In *Linear Technology*, the district court held that a claim term invoked § 112, ¶ 6, after the court rejected the patentee's expert evidence that the term "would be understood by persons of ordinary skill in the art to connote sufficient structure to perform the recited function." 379 F.3d at 1319. This Court reversed, on the ground that the district court—by concluding that § 112, ¶ 6 applied based on its rejection of the patentee's evidence—had improperly placed the burden on the patentee to demonstrate that the term connoted structure, as opposed to applying the presumption and requiring the challenger to rebut it by demonstrating that the term did not connote structure. *Id.* at 1319-20. Similarly, here the district court failed to properly apply the presumption and to require Life360 to rebut it, when the court concluded that § 112, ¶ 6 applied after it rejected Dr. Goldberg's testimony.

II. The Two “CPU Software” Elements Refer to Well-Known Classes of Standard Software Modules and Did Not Invoke § 112, ¶ 6

As AGIS explained (AGIS Br. at 34-39), the district court erred when it concluded that the “CPU software for selectively polling other participants” element in claim 10 of the ’728 patent and the “CPU software that causes the exchange of data with other participants with a cellular phone” element in claim 9 of the ’681 patent invoked § 112, ¶ 6. In both cases, Life360 did not meet its burden of rebutting the presumption that § 112, ¶ 6 did not apply.

Dr. Goldberg’s testimony showed that those skilled in the art would have understood the “CPU software for selectively polling other participants” element to refer to a well-known, specific class of structures, namely, a well-known class of existing, standard software modules used to selectively send a polling message to a cellular phone. A550-51, ¶¶ 24-25; A736, 28:16-24; A801-02; A812-13. Dr. Goldberg testified as follows in his declaration:

It is my opinion that one of ordinary skill in the art would have understood “CPU software for [selectively sending a command to the cellular phones of other participants whose cellular phones respond]” to be a standard module of software code that was well known in the art. One of ordinary skill in the art would have understood that there existed classes of software subroutines that programmers would have used to selectively send a command to the cellular phones of other participants whose cellular phones respond. For example, one of ordinary skill in the art would have known how to utilize common networking and user interface libraries along with corresponding APIs to select a user via a user interface, such as a touch screen, and then to send that user’s cellphone a polling message via a known networking interface.

Furthermore, it is my opinion that the term “CPU software” would have been sufficient to identify these modules of program code to one of ordinary skill in the art.

A550-51, ¶¶ 24-25. Dr. Goldberg further explained at the hearing that the specific software used for a given device would be well-known to those skilled in the art because the software is basic, standard software that manufacturers provide for every device:

Q. If we can move to the next term, Dr. Goldberg, “CPU software for selectively polling other participants.” Let me just talk about the last few words there, “selectively polling other participants.” Do you have an understanding of the meaning of those terms?

A. Well, in fact, in this case the parties have agreed to the meaning of that phrase “CPU software for selectively polling other participants.” . . . it means CPU software for selectively sending a command to the cellular phones of other participants to which those cellular phones respond. . . .

Q. So with that understanding . . . does this phrase connote to one of skill in the art specific structure?

A. Oh, absolutely. Again, the same way. The computer manufacturers and the device manufacturers provide libraries of code for performing telecommunications, for sending and receiving messages. And all the CPU software is doing is sending a command that the other cell phone can respond to. And so the only thing that CPU software adds here is the sending of commands which is what every one of skill, every computer science developer or student would know how to use the telecommunications libraries provided on every machine in order to send the command.

* * *

Again, the word “polling” is a term of art in computer science. It means sending commands that is requesting a response. And this - you know, this structure would be totally known to everybody practicing. And you can see why the parties agree to what “selectively polling” means, because it just simply means sending a command to elicit a response. And that’s what the libraries, software libraries provide the ability to do is to send a command.

A801-02; *see also* A812-13.

Similarly, Dr. Goldberg’s testimony showed that those skilled in the art would have understood the “CPU software that causes the exchange of data with other participants with a cellular phone” element to refer to another well-known, specific class of structures, namely, a well-known class of existing, available, basic, simple, standard software modules used to exchange data with cellular phones. A554, ¶¶ 33-34; A737, 31:20-32:12; A802-04; A812-13. Dr. Goldberg testified as follows in his declaration:

It is my opinion that one of ordinary skill in the art would have understood “CPU software that causes the exchange of data with other participants with a cellular phone” to be a standard module of software code that was well known in the art. One of ordinary skill in the art would have understood that there existed classes of software routines that programmers would have used to electively send data to the cellular phones of other participants whose cellular phones respond. For example, one of ordinary skill in the art would have known how to utilize common networking libraries along with corresponding APIs to cause the exchange of data with other users. For example, one of ordinary skill in the art would have known how to utilize these protocols and APIs to construct data packets such as TCP and/or UDP packets, address them to other network users, and send them over a network.

Furthermore, it is my opinion that the term “CPU software” would have been sufficient to identify these modules of program code to one of ordinary skill in the art.

A554, ¶¶ 33-34. And, once again, Dr. Goldberg explained at the hearing that the specific software to use for a given device would be well-known because the software is basic, standard software that manufacturers provide for every device:

Q. If we can move to the final claim term, “CPU software that causes the exchange of data with other participants with a cell phone.” In the context of the ’681 patent, does this CPU software connote structure to one of skill in the art?

A. Sure.

Q. And what structure, Dr. Goldberg?

A. Well, again, it’s the structure that, it’s the software, the libraries that allow a device, such as in this case a cell phone, to send data to another cell phone and to receive data from another cell phone. And cell phone manufacturers provide these software libraries for exactly that purpose which is sending and receiving data in order to exchange it.

Q. And again, Dr. Goldberg, does this claim language refer one of ordinary skill to existing algorithms or does it simply tell the person of skill what they might devise?

A. No, it really refers to exactly those software libraries, so-called APIs, that provide the functionality which is the sending and receiving of data.

A802-03; *see also* A812-13.

In sum, Dr. Goldberg’s testimony showed that those skilled in the art would understand the “CPU software” elements to refer to basic, standard software, which manufacturers provide with every device, to poll other phones and to

exchange data with other phones, respectively. Life360 did not submit any evidence in response. Therefore, Dr. Goldberg’s un rebutted testimony that those skilled in the art would have understood what the two “CPU software” elements are demonstrated that the “the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure.” *Williamson*, 792 F.3d at 1348. The district court’s findings to the contrary were clearly erroneous, and its conclusion that § 112, ¶ 6 applied should be reversed.

As explained below, once again, Life360 responds primarily by recasting Dr. Goldberg’s testimony to try to defend the district court’s erroneous findings and analysis. Life360 Br. at 35-41.

A. The District Court Erred When It Misconstrued the Testimony of AGIS’s Expert As Being Directed Only to Whether Those Skilled In the Art Could Create Software

As it did for “symbol generator,” Life360 recasts Dr. Goldberg’s testimony to try to support the district court’s erroneous finding that the testimony “only seems to discuss how the claim language is sufficient to enable one skilled in the art to create software” A15; *see also* A18. Life360 asserts that Dr. Goldberg’s testimony that those skilled in the art “would have known how to utilize common networking and user interface libraries along with corresponding APIs” was merely evidence that they could “build” software used to selectively

send a polling message to a phone and to exchange data with phones, not evidence that this software already existed. Life360 Br. at 39-40 (quoting A550, ¶ 24; A554, ¶ 33); *see also* Life360 Br. at 4, 15. Once again, Life360’s argument echoes its argument to the district court that Dr. Goldberg testified that those skilled in the art could “figure out” how to develop software, and that this testimony was irrelevant to whether § 112, ¶ 6 applied, because the testimony addressed enablement. A684-85; A818-22; AGIS Br. at 18-21.

Dr. Goldberg did not testify that those skilled in the art could “figure out” how to “create” or “devise” or “build” software, or that this software did not already exist. He testified that they would have understood the “CPU software” elements to refer to two well-known classes of existing, available, standard software modules used to poll other phones and to exchange data with other phones. A550-51, ¶¶ 24-25; A554, ¶¶ 33-34; A736, 28:16-24; A737, 31:20-32:12; A801-02; A812-13. In particular, in the passage quoted by Life360 (Life360 Br. at 39) and the district court (A14-15), Dr. Goldberg testified that those skilled in the art would know how to “utilize” this existing software, not how to “create” or “devise” or “build” it. A550, ¶ 24; A554, ¶ 33.

Thus, Dr. Goldberg’s testimony was not directed to enablement, *i.e.*, whether those skilled in the art could build software. His testimony was directed to whether the “CPU software” elements invoked § 112, ¶ 6, *i.e.*, whether they would

have been “understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure.” *Williamson*, 792 F.3d at 1348.

Moreover, as AGIS explained (AGIS Br. at 37-38), Life360’s argument and its recasting of Dr. Goldberg’s testimony confused the district court, which misconstrued the testimony and, as a result, analyzed it using the wrong legal framework. In particular, even though the testimony was directed to whether the “CPU software” elements invoked § 112, ¶ 6, the court analyzed the testimony in the context of the *Function Media* precedent (discussed above) (and a related M.P.E.P. excerpt) that did not address this issue but instead addressed the different issue of whether the specification disclosed corresponding structure for a “means” element clearly subject to § 112, ¶ 6. *See* A15 (citing *Function Media*, 708 F.3d at 1319; M.P.E.P. § 2181(II)(B) (9th ed. Mar. 2014)).³

Finally, as it did for “symbol generator,” Life360 asserts that Dr. Goldberg’s testimony regarding the “CPU software” elements was “conclusory” and “uncorroborated.” Life360 Br. at 37-38. But Dr. Goldberg explained in his declaration (quoted above) that those skilled in the art would know precisely which software to use, namely, well-known “common networking and user interface

³ Life360 also relies on *Function Media* to argue that “AGIS ‘cannot rely on the knowledge of one skilled in the art to fill in the gaps’ in the specification concerning structure.” Life360 Br. at 39 (quoting 708 F.3d at 1319). As discussed above, this principle is relevant only to whether the specification disclosed corresponding structure (which is not at issue in this appeal), not whether an element invoked § 112, ¶ 6 in the first place (which is at issue).

libraries along with corresponding APIs” used to selectively send polling messages and to exchange data with phones. A550, ¶ 24; A554, ¶ 33. And he explained at the hearing (in the testimony quoted above) that the specific software used for a given device would be well-known because the software is standard software that manufacturers provide for every device. A801-04; A812-13.

As the excerpts quoted above show, Dr. Goldberg’s testimony was not conclusory or unsupported. Life360 asserts that Dr. Goldberg “never identified or named any examples” (Life360 Br. at 38), but it ignores the testimony quoted above, in which he explained that each device would have specific software for each of the two functions. Notably, Life360 does not explain what examples Dr. Goldberg was purportedly required to discuss.

B. The District Court Erred When It Focused on the Term “CPU Software” In Isolation

Life360 also makes the same error that the district court did when it focused on the term “CPU software” in isolation and concluded that this term “is used to refer to a generic software function or algorithm” because “[t]he term ‘software’ standing alone connotes no more structure than the term ‘means.’” A15-16. As AGIS explained (AGIS Br. at 38-39), the district court should have considered the entire “CPU software” elements because Dr. Goldberg’s testimony showed that those skilled in the art would have understood the phrases “CPU software for selectively polling other participants” and “CPU software that causes the exchange

of data with other participants with a cellular phone” to refer to two well-known classes of existing, standard software modules. A550-51, ¶¶ 24-25; A554, ¶¶ 33-34; A801-04; A812-13. The district court erred by disregarding this surrounding claim language, which defined the specific classes of software recognized by those skilled in the art.

Life360 does not dispute that the district court focused on the term “CPU software” in isolation and ignored the surrounding claim language. In fact, Life360 repeats the district court’s error when it too focuses on the term “CPU software” in isolation and argues that it is a “generic placeholder,” “black box” and “generic nonce term[.]” Life360 Br. at 3, 15, 36, 37, 40-41. Dr. Goldberg’s un rebutted testimony demonstrated that the complete wording of the disputed “CPU software” limitations connoted two well-known, specific classes of existing software modules to those skilled in the art.

III. § 112, ¶ 6 Should Be Invoked Only If a Claim Element Uses the Term “Means”

Last, as AGIS explained (AGIS Br. at 39-43), this Court’s precedent that a claim element that does not use the term “means” is merely presumed not to invoke § 112, ¶ 6 is inconsistent with the statutory text, which states that the

provision is invoked only if an applicant elects to “express[]” a claim element “as a means or step for performing a specified function.”⁴

Life360 responds by asserting that the phrase “expressed as a means” does “not preclude applicants from using other language aside from ‘means’” and that “[t]he point of § 112(6) is plainly to allow applicants to claim their inventions functionally” without “dictat[ing] a single way to accomplish that result.” Life360 Br. at 43. But aside from those conclusory assertions, the only time Life360 actually purports to interpret the statutory text, it misstates what the text says. Life360 asserts that “the statute only indicates that applicants ‘may’ invoke § 112(6) by ‘express[ing] [an element] as a means’” *Id.* at 42-43. But the statute does not state that an applicant “may” invoke § 112, ¶ 6 by “express[ing]” an element “as a means”; it states that an applicant “may” “express” an element “as a means” and, if the applicant does so, § 112, ¶ 6 is invoked. In other words, Congress’ intent is that an applicant can elect whether to invoke § 112, ¶ 6, and that an applicant elects to do so by “express[ing]” the element “as a means.”

As AGIS explained (AGIS Br. at 40-42), the Court did not attempt to reconcile the presumption with the statutory text in the two decisions to which the presumption can be traced. *See Greenberg v. Ethicon Endo-Surgery, Inc.*, 91 F.3d

⁴ As AGIS acknowledged (AGIS Br. at 39 n.11), because a majority of the en banc Court recently reaffirmed the presumption, *see Williamson*, 792 F.3d at 1349, AGIS respectfully argues the issue here to preserve it for Supreme Court review.

1580, 1584 (Fed. Cir. 1996); *Cole v. Kimberly-Clark Corp.*, 102 F.3d 524, 531 (Fed. Cir. 1996). And the two sources cited in *Greenberg* and *Cole* to support the presumption—the 1994 PTO examiner guidelines, *see* 1162 O.G. 59, and *Raytheon Co. v. Roper Corp.*, 724 F.2d 951 (Fed. Cir. 1983)—also did not analyze the statutory text. *See Greenberg*, 91 F.3d at 1584; *Cole*, 102 F.3d at 531.⁵ Life360 does not dispute any of this; in fact, Life360 does not respond to this aspect of AGIS’s argument at all.⁶

Life360 also argues that any unfairness is caused not by the presumption but by AGIS’s failure to be clear when it drafted its claim language. Life360 Br. at 43-44. But the unrebutted expert evidence before the district court demonstrated that the claim language AGIS chose was perfectly clear to those skilled in the art. It is only now, years later, that the district court has retroactively decided that AGIS invoked § 112, ¶ 6, even though AGIS never manifested during prosecution that it had elected to do so.

⁵ Life360 cites *Raytheon* for the proposition that “functional claim language introduced by ‘so that’ invokes § 112(6).” Life360 Br. at 35, 36. But as AGIS explained, *Raytheon* did not even address § 112, ¶ 6. AGIS Br. at 41-42.

⁶ Without acknowledging AGIS’s discussion of the PTO guidelines (AGIS Br. at 41), Life360 argues that the PTO’s statement that § 112, ¶ 6 can be invoked without using “means” should be “given *Chevron* deference.” Life360 Br. at 43 n.9. This argument should be rejected because the PTO receives *Chevron* deference only within the scope of its rulemaking authority, which is limited to procedural rules related to the “conduct of proceedings” in the PTO, not “matters of substantive patent law.” *See Cooper Techs. Co. v. Dudas*, 536 F.3d 1330, 1336-37 (Fed. Cir. 2008); *Merck & Co., Inc. v. Kessler*, 80 F.3d 1543, 1549-50 (Fed. Cir. 1996).

Finally, Life360’s fallback argument that any uncertainty caused by the presumption is acceptable—because the Supreme Court tolerates the uncertainty resulting from the doctrine of equivalents—misses the mark. Life360 Br. at 44. As the excerpt quoted by Life360 shows, the uncertainty stemming from the doctrine of equivalents is “the price of ensuring the appropriate incentives for innovation.” *Id.* (quoting *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 732 (2002)). In contrast, the uncertainty engendered by this Court’s presumption *reduces* the incentives for innovation by retroactively invalidating patentable claims years later, even though the patentee did not elect to invoke § 112, ¶ 6 and used claim language that connoted structure to those who, unlike lawyers and judges, are actually skilled in the art.

CONCLUSION

For the reasons set forth above and in AGIS’s opening brief, the district court erred in concluding that the “symbol generator” and “CPU software” elements invoked § 112, ¶ 6. Therefore, AGIS respectfully requests that this Court reverse the judgment that claims 3 and 10 of the ’728 patent and claims 5 and 9 of the ’681 patent are indefinite, and remand for further proceedings on those claims.

Respectfully submitted,

Dated: October 27, 2015

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CERTIFICATE OF SERVICE

I, Maryna Sapyelkina, being duly sworn according to law and being over the age of 18, upon my oath depose and say that:

Counsel Press was retained by Kenyon & Kenyon LLP, Attorneys for Plaintiff-Appellant, to print this document. I am an employee of Counsel Press.

On October 27, 2015, counsel has authorized me to electronically file the foregoing *Reply Brief for Plaintiff-Appellant Advanced Ground Information Systems, Inc.* with the Clerk of Court using the CM/ECF System, which will serve via e-mail notice of such filing to any of the following counsel registered as CM/ECF users:

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CERTIFICATE OF COMPLIANCE

Pursuant to Rule 32(a)(7)(C) of the Federal Rules of Appellate Procedure, the undersigned certifies that this brief complies with the type-volume limitation of Rule 32(a)(7)(B)(ii) of 7,000 words for a reply brief. This brief contains 6,991 words, calculated by the word-processing software used to prepare it.

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